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ENGINEERING DATA TRANSMITTAL

Page 1 of 1

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2. To: (Receiving Organization)	3. From: (Originating Organization)	4. Related EDT No.:
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1	WHC-SD-EN-AP-171		0	Sampling and Analysis Plan for RCRA Closure Activities at 218-E-8 Borrow Pit Demolition Site	ESQ	1/2	1	
2	WHC-SD-EN-AP-172		0	Sampling and Analysis Plan for RCRA Closure Activities at 200 West Ash Pit Demolition Site	ESQ	1/2	1	

16. KEY

Impact Level (F)	Reason for Transmittal (G)	Disposition (H) & (I)
1, 2, 3, or 4 (see MRP 5.43)	1. Approval 4. Review 2. Release 5. Post-Review 3. Information 6. Dist. (Receipt Acknow. Required)	1. Approved 4. Reviewed no/comment 2. Approved w/comment 5. Reviewed w/comment 3. Disapproved w/comment 6. Receipt acknowledged

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(G) Reason	(H) Disp.	(J) Name (K) Signature (L) Date (M) MSIN	(J) Name (K) Signature (L) Date (M) MSIN	(G) Reason	(H) Disp.
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1/2	1	Cog. Mgr. R. C. Roos R.C. Roos 5/16/94 H6-04			
		QA D.G. Farwick L.W. Vance For H4-16			
		Safety			
1/4	1	Env. D.G. Black DG Black 6/1/94 H6-30			
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18.	19.	20.	21. DOE APPROVAL (if required) Ltr. No.
J.G. Lucas J.G. Lucas 5-23-94 Signature of EDT Originator / Date	Authorized Representative for Receiving Organization / Date	R.C. Roos R.C. Roos 5/16/94 Cognizant/Project Engineer's Manager / Date	[] Approved [] Approved w/comments [] Disapproved w/comments

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INFORMATION RELEASE REQUEST

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[] Brochure/Flier
[] Software/Database
[] Controlled Document
[] Other

ID Number (include revision, volume, etc.): WHC-SD-EN-AP-172, Rev. 0

List attachments.

Date Release Required: April 27, 1994

Title: Sampling and Analysis Plan for RCRA Closure Activities at 200 West Ash Pit Demolition Site

Unclassified Category: UC-

Impact Level: ESQ

New or novel (patentable) subject matter? [X] No [] Yes
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Classification/Unclassified Controlled Nuclear Information	[]	[X]			
Patent - General Counsel	[X]	[]	BDWilliamson	BDWilliamson	5/3/94
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Author/Requestor (Printed/Signature) Date: J. G. Lucas, 4-26-94

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Part 1

SUPPORTING DOCUMENT		1. Total Pages 9
2. Title Sampling and Analysis Plan for RCRA Closure Activities at 200 West Ash Pit Demolition Site	3. Number WHC-SD-EN-AP-172	4. Rev No. 0
5. Key Words soil sampling, chemical analysis APPROVED FOR PUBLIC RELEASE 5/14/94 N. Solis	6. Author Name: J. G. Lucas Signature Organization/Charge Code 8B420/A134M	

7. Abstract

Jackson, G. J. and J. G. Lucas, 1994, *Sampling and Analysis Plan for RCRA Closure Activities at 200 West Ash Pit Demolition Site*, WHC-SD-EN-AP-172, Rev. 0, Westinghouse Hanford Company, Richland, Washington.

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9. Impact Level ESQ

10. RELEASE STAMP

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1 Metric Conversion Chart Att-1

FIGURES:

1 200-W Ash Pit Demolition Site 2
2 Soil Sample Locations/Depth 3

1.0 PURPOSE

The purpose of this document is to provide guidance for sampling and analysis activities associated with the proposed *Resource Conservation and Recovery Act of 1976* (RCRA) clean closure of the 200 West Ash Pit Demolition Site (Figure 1). This document is a supplement to *200 West Ash Pit Demolition Site Closure Plan* (DOE-RL 1992), and should be used in conjunction with the *Environmental Investigations and Site Characterization Manual* (WHC 1988).

A metric conversion chart (Attachment 1) is provided to the reader as a tool to aid in conversion.

2.0 OBJECTIVE

Ten soil samples will be taken from specific locations (Figure 2) within a 7.5-ft radius centered at the blasting pit. The objective of the work is to facilitate a RCRA clean closure of the site by verifying that the concentrations of all detonation activity contaminants are below action levels. Action levels are defined as levels above the Hanford Site soil background levels identified in *Hanford Site Background: Part 1, Soil Background for Nonradioactive Analytes* (DOE-RL 1993) and Model Toxic Control Act (MTCA) (WAC 173-340) residential levels. If analysis determines that levels are above both these guidelines, a phase two investigation will be developed. This is not anticipated, however, because of the nature of detonation efficiency and weathering action.

3.0 SITE DESCRIPTION/BACKGROUND

The 200 West Ash Pit Demolition Site is located in a multi-use borrow pit in the eastern portion of the 200 West Area, with approximate dimensions of 600 ft x 800 ft. The borrow pit was used for demolition of discarded explosive chemicals, tumbleweed incineration, and as a source of soil for construction material. The demolition site was located apart from these other activities within the borrow pit. None of these other activities are believed to have contaminated the demolition site.

Demolitions occurred at the 200 West Ash Pit Demolition Site in November 1984 and June 1986. Discarded explosive chemicals were placed in a 6- to 12-in depression dug expressly for demolition purposes. During the June 1986 demolition activity, 2 gal of unleaded gasoline were placed with the standard detonating products. All discarded explosive chemicals were detonated in their original closed containers.

A 20-ft x 20-ft surface area containing the visible depression is roped off and marked as a dangerous waste site. The site also is marked by surveyed monuments.

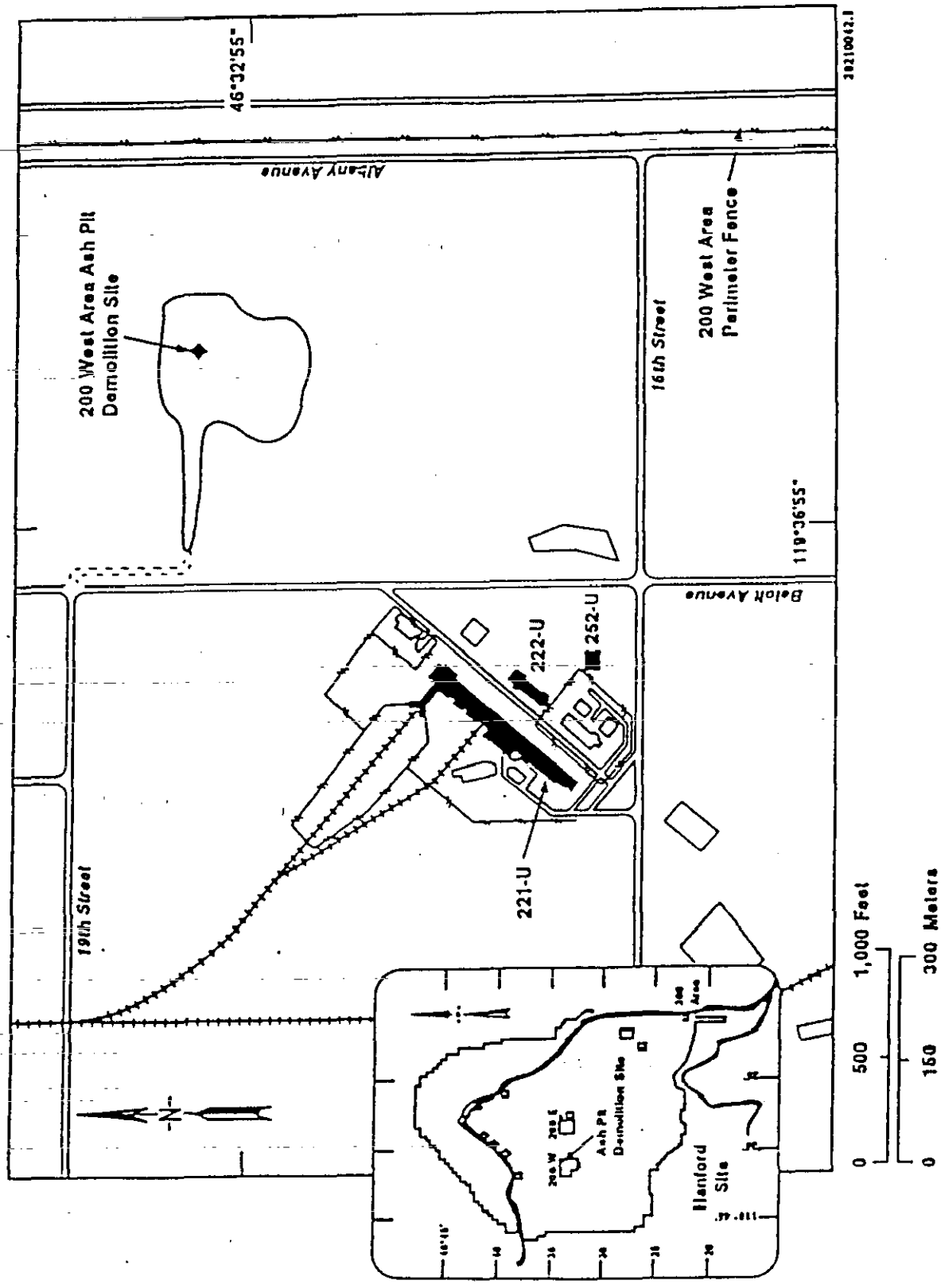

Figure 1. 200-W Ash Pit Demolition Site.

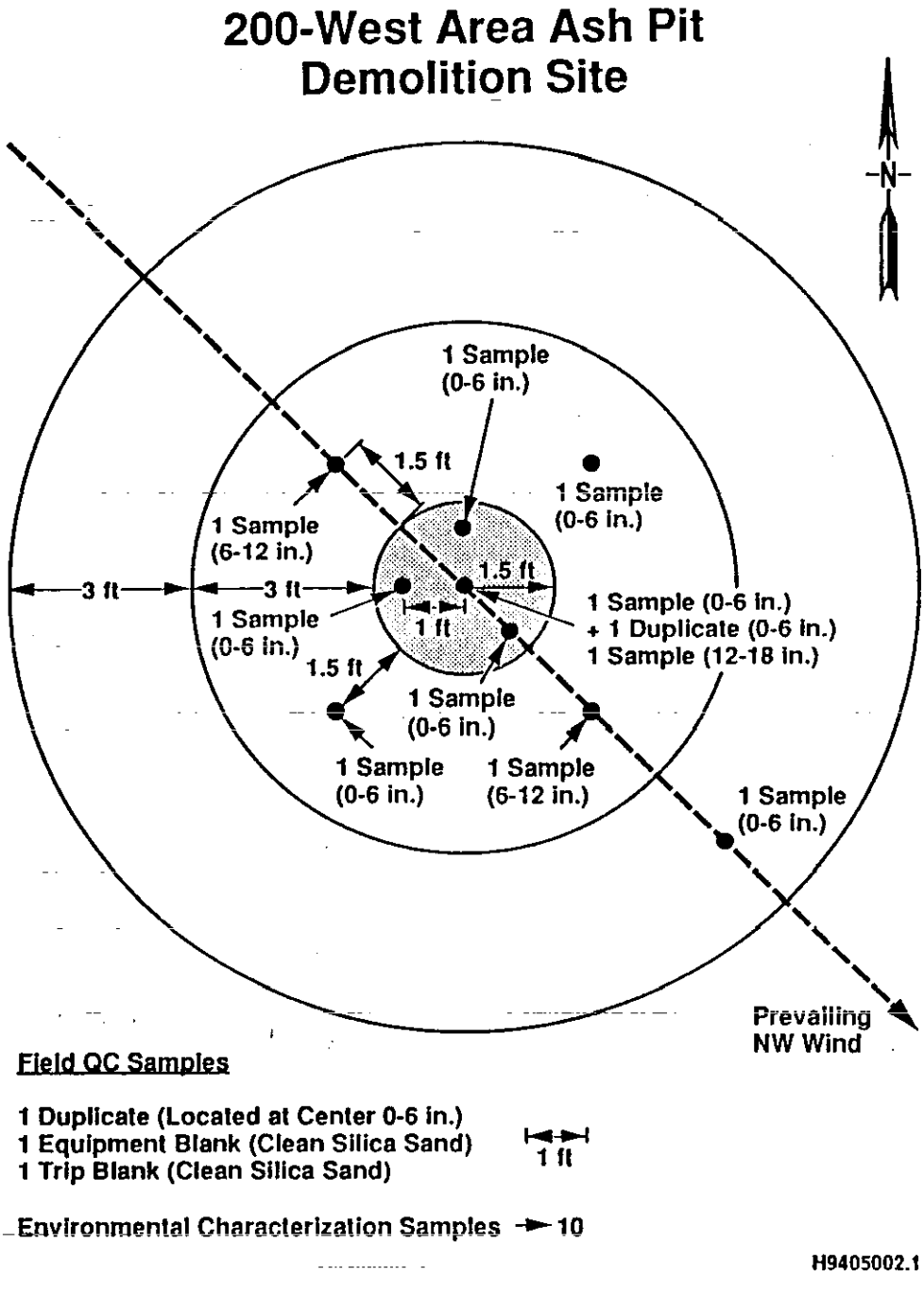

Figure 2. Soil Sample Locations/Depth.

4.0 SCOPE OF WORK

Ten soil characterization samples will be taken by hand from locations (Figure 2) at the 200 West Ash Pit Demolition Site.

All sampling activities will be conducted in accordance with the following environmental investigations instructions (EII) procedures (WHC 1988):

- EII 1.1, Hazardous Waste Site Entry Requirements
- EII 1.5, Field Logbooks
- EII 1.13, Environmental Readiness Review
- EII 5.1, Chain of Custody
- EII 5.2, Soil and Sediment Sampling
- EII 5.5, 1706 KE Laboratory Decontamination of RCRA/CERCLA Sampling Equipment
- EII 5.10, Obtaining Sample Identification Numbers and Accessing HEIS Data
- EII 5.11, Sample Packaging and Shipping
- EII 14.1, Analytical Laboratory Data Management.

5.0 SAMPLING AND FIELD ACTIVITIES

This section describes Task 1, Sampling of the 200 West Ash Pit Demolition Site.

5.1 SUBTASK 1A - SAMPLE LOCATION DETERMINATIONS

The blasting pit will be reconstructed by removing wind blown sand to create a 1-ft-deep, 3-ft diameter hole. The pit will be located at the center of the posted dangerous waste site. The ten sampling locations will be appropriately marked (Figure 2) and if necessary, the pit diameter will be enlarged to facilitate sampling. Sample depths within reconstructed crater (Figure 2, shaded area) are based upon reconstructed crater.

5.2 SUBTASK 1B - SAMPLING

Engineering support personnel will use hand tools to obtain soil samples in accordance with information provided in Figure 2. All samples will be packaged, handled, and shipped in accordance with WHC (1988).

6.0 LABORATORY ANALYSIS

Samples collected for chemical analysis will be analyzed utilizing SW-846 methods (EPA 1986) and approved EPA 300 series methods (EPA 1983). The unleaded gasoline discussed in Section 3.0 will be identified as a Tentatively Identified Compound (TIC) by method 8270 (EPA 1986). The contaminants of concern and the methods used for testing are:

- Volatile organic analysis, method 8240
- Semivolatile organic analysis, method 8270
- Detonation residue, method 8330
- Anions, EPA 300.0
- Total nitrogen, EPA 353.1-2
- ICP metals, method 6010.

7.0 REGULATORY AND HANFORD SITE COMPLIANCE

Field quality control (QC) samples will be collected by the sampling scientist and documented in the sampling logbook in accordance with EII 1.5, "Field Logbooks" (WHC 1988). The following is a list of the field QC samples to be collected:

- One duplicate sample at center of pit (0 to 6 in. depth) for full analysis
- One equipment blank (clean silica sand) for full analysis
- One trip blank (clean silica sand) for VOA analysis only.

9.0 REFERENCES

DOE-RL, 1992, *200 West Ash Pit Demolition Site Closure Plan*, DOE/RL-92-54, U.S. Department of Energy, Richland Operations Office, Richland, Washington.

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EPA, 1983, *Methods for Chemical Analysis of Water and Waste*, 600/4-79-020, U.S. Environmental Protection Agency, Washington, D.C.

EPA, 1986, as amended, *Test Methods for Evaluating Solid Waste: Physical/ Chemical Methods*, SW-846, 3rd Edition, U.S. Environmental Protection Agency, Washington, D.C.

WHC, 1988, *Environmental Investigations and Site Characterization Manual*, WHC-CM-7-7, Westinghouse Hanford Company, Richland, Washington.

WAC 173-340, "Model Toxics Control Act--Cleanup," *Washington Administrative Code*, as amended.

ATTACHMENT 1

METRIC CONVERSION CHART

The following conversion chart is provided to the reader as a tool to aid in conversion.

Into Metric Units

If You Know	*Multiply By*	*To Get*
Length		
inches	25.4	millimeters
inches	2.54	centimeters
feet	0.305	meters
yards	0.914	meters
miles	1.609	kilometers
Area		
sq. inches	6.452	sq. centimeters
sq. feet	0.093	sq. meters
sq. yards	0.836	sq. meters
sq. miles	2.6	sq. kilometers
acres	0.405	hectares
Mass (weight)		
ounces	28.35	grams
pounds	0.454	kilograms
short ton	0.907	metric ton
Volume		
teaspoons	5	milliliters
tablespoons	15	milliliters
fluid ounces	30	milliliters
cups	0.24	liters
pints	0.47	liters
quarts	0.95	liters
gallons	3.8	liters
cubic feet	0.028	cubic meters
cubic yards	0.765	cubic meters
Temperature		
Fahrenheit	subtract 32 then multiply by 5/9ths	Celsius

Out of Metric Units

If You Know	*Multiply By*	*To Get*
Length		
millimeters	0.039	inches
centimeters	0.394	inches
meters	3.281	feet
meters	1.094	yards
kilometers	0.621	miles
Area		
sq. centimeters	0.155	sq. inches
sq. meters	10.76	sq. feet
sq. meters	1.196	sq. yards
sq. kilometers	0.4	sq. miles
hectares	2.47	acres
Mass (weight)		
grams	0.035	ounces
kilograms	2.205	pounds
metric ton	1.102	short ton
Volume		
milliliters	0.033	fluid ounces
liters	2.1	pints
liters	1.057	quarts
liters	0.264	gallons
cubic meters	35.315	cubic feet
cubic meters	1.308	cubic yards
Temperature		
Celsius	multiply by 9/5ths, then add 32	Fahrenheit

CUSTOMER DOCUMENT RELEASE INFORMATION

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CUSTOMER NAME: John Lucas PHONE: 6-2789

PAYROLL NUMBER: 55152

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